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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/017,772 | 10/29/2001 | Hubert Benzel | 10191/1924 | 6125 |

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EXAMINER

ALLEN, ANDRE J

ART UNIT PAPER NUMBER

2855

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,772

Applicant(s)

BENZEL ET AL.

Examiner

Andre J. Allen

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Election made 2-20-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benzel et al in view of Wesling et al.

Regarding claim 1 Benzel et al teaches a substrate 10 and a region 30 arranged on the substrate made of a porous material (abstract) which is mechanically supporting and thermally insulating. Benzel does not teach a diaphragm positioned on the substrate. Wesling teaches a component that comprises a diaphragm (abstract) supported on a region (abstract) that supports and insulates the diaphragm (abstract). Therefore, it would have been obvious to a person having ordinary skill in the art to provide a diaphragm as taught by Wesling et al in the substrate of Benzel et al for the purpose of effectively transmitting or determining a pressure (see Wesling et al col. 1 lines 53-55).

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benzel et al in view of Wesling et al as applied to claim 1 above, and further in view of Muchow et al.

Regarding claim 2 Benzel as modified by Wesling et al does not teach the porous material to be formed from the substrate. Muchow et al teaches a porous material to be formed from the substrate (abstract lines 1-3) therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to form a material from the substrate of a sensor (etching) as taught by Muchow et al for the purpose of increasing the working capacity of a sensor or semiconductor, also to form a flexible membrane (see Muchow et al col. 2 lines 2-3).

3. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benzel et al in view of Wesling et al as applied to claim 1 above, and further in view of Chi et al.

Regarding claim 3 Benzel as modified by Wesling et al does not teach a hollow space to be formed under the region , however Chi et al teaches a hollow space that are formed in an oxide layer (col. 2 lines 49-50). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a hollow space under a region for the

purpose of stabilizing operating temperatures in a semiconductor (see Chi et al. col. 2 lines 24-25)

Regarding claims 4 and 5 Benzel does not disclose the diaphragm to be formed by oxidizing the substrate and surface of the region, and also fails to teach the region to be completely oxidized. Chi et al teaches a diaphragm 12 to be formed by oxidizing the substrate 16 and surface of the region, and the region 16 to be completely oxidized (col.2 lines 38-65). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the component taught by Benzel et al with a diaphragm formed from an oxidized surface as taught by Chi et al for the purpose of assuring good thermal isolation (see Chi et al col. 1 line 48)

Allowable Subject Matter

3. Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art does not disclose or suggest a micromechanical component comprising the structure of a dew point sensor including a thermocouple, interdigital capacitor, a dew point measuring device, a mirror and heat radiation sensor .


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 703-3081989. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 703-305-4816. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-3432 for regular communications and 703-308-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A.J.A
May 28, 2003


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
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